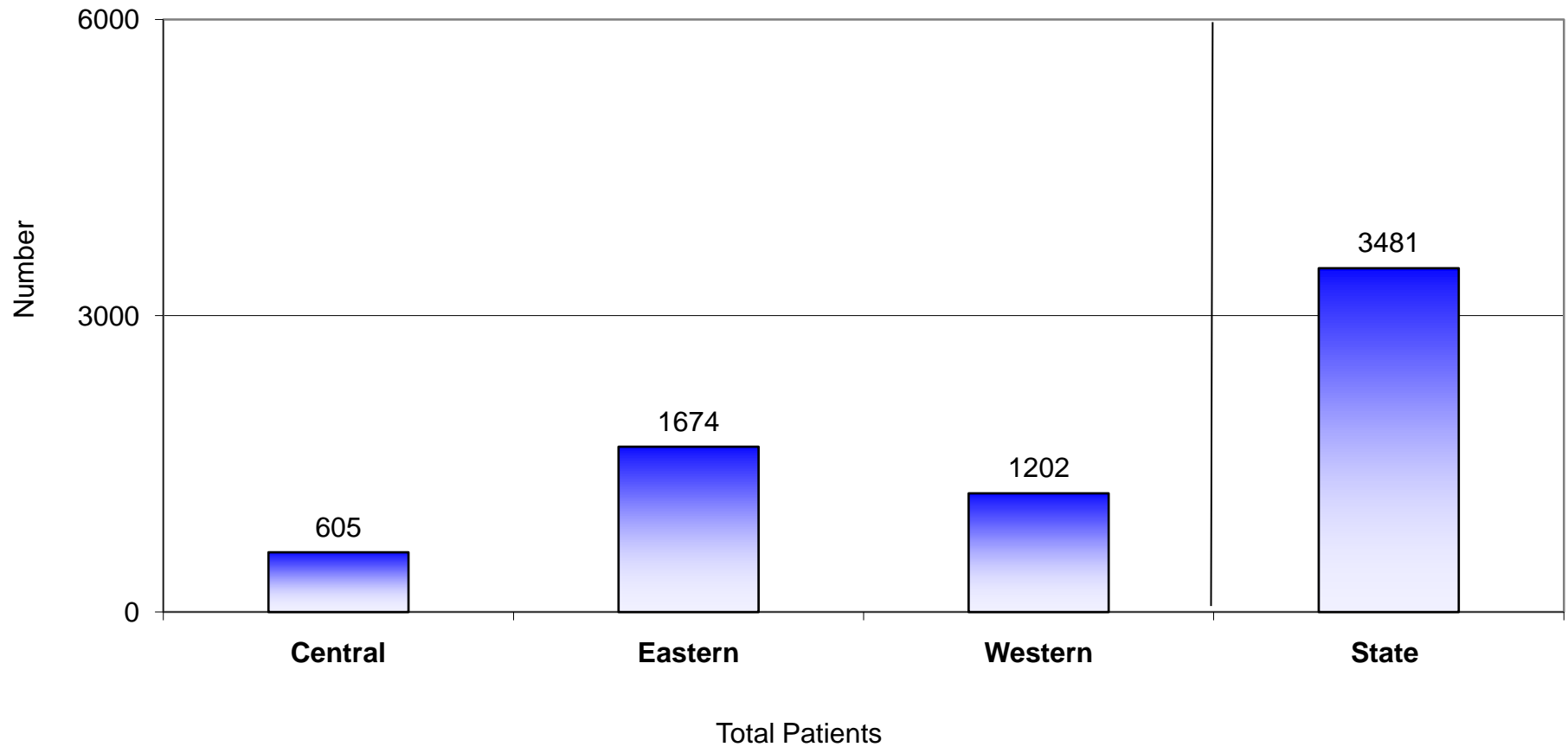


# ***State Trauma Care Committee Report February 8, 2010***

***Montana Trauma Registry  
January 1 – September 30, 2009***

## Total Patients Year 2009



**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



# ***Central Region Facilities***

<b>Fort Benton - Missouri River Medical Center</b>	<b>6</b>
<b>Havre - Northern Montana Hospital</b>	<b>1</b>
<b>Townsend - Broadwater Health Center</b>	<b>6</b>
<b>Cut Bank - Northern Rockies Medical Center</b>	<b>13</b>
<b>Conrad - Pondera Medical Center</b>	<b>7</b>
<b>Chester - Liberty County Hospital</b>	<b>1</b>
<b>Great Falls - Benefis Health Care</b>	<b>318</b>
<b>Helena - St. Peter's Hospital</b>	<b>12</b>
<b>Total 3<sup>rd</sup> Qtr</b>	<b>364</b>

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



# ***Eastern Region Facilities***

Ennis - Madison Valley Hospital	4
Livingston Memorial Hospital	32
Roundup Memorial Hospital	20
Lewistown - Central Montana Hospital	16
Scobey - Daniels Memorial Hospital	1
Culbertson - Roosevelt Memorial Medical Center	1
Harlowton - Wheatland Memorial Hospital	9
Red Lodge - Beartooth Hospital & Health Center	20
Plentywood - Sheridan Memorial Hospital	2
Columbus - Stillwater Community Hospital	6
Wolf Point - Trinity Hospital	17
Poplar - Northeast Montana Health Services	11
Glasgow - Frances Mahon Deaconess Hospital	14
Big Timber - Pioneer Medical Center	14
Hardin - Big Horn County Memorial Hospital	4
Crow Agency - PHS Indian Hospital	44
Bozeman Deaconess Hospital	150
Billings - Billings Clinic	523
Billings - Saint Vincent Healthcare	164
Circle - McCone County Health Center	1
Lame Deer Clinic	3
Colstrip Medical Clinic	7
Total 3 <sup>rd</sup> Quarter	1063

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



# ***Western Region Facilities***

<b>Polson - St. Joseph Hospital</b>	<b>27</b>
<b>Anaconda - Community Hospital of Anaconda</b>	<b>26</b>
<b>Hamilton - Marcus Daly Memorial Hospital</b>	<b>13</b>
<b>Dillon - Barrett Hospital</b>	<b>32</b>
<b>Superior - Mineral County Hospital</b>	<b>20</b>
<b>Ronan - St. Luke Community Hospital</b>	<b>21</b>
<b>Deer Lodge - Powell County Memorial Hospital</b>	<b>18</b>
<b>Libby - St. John's Lutheran Hospital</b>	<b>8</b>
<b>Whitefish - North Valley Hospital</b>	<b>46</b>
<b>Philipsburg - Granite County Medical Center</b>	<b>4</b>
<b>Kalispell Regional Hospital</b>	<b>90</b>
<b>Missoula - Community Medical Center</b>	<b>72</b>
<b>Butte - St. James Healthcare</b>	<b>48</b>
<b>Missoula - St. Patrick Hospital</b>	<b>322</b>
<b>Total 3<sup>rd</sup> Quarter</b>	<b>747</b>

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**

# ***2009 Patient YTD Demographics***

**75% ages 10-64**

**(26% > 55 yrs of age)**

**7% < 10 of age**

**14%  $\geq$  65 of age**

**77% White**

**14% Native**

**6% Other**

**6% ND**

**67% Male**

**33% Female**



# ***2009 Patient Demographics***

**93% Blunt**

**5% Penetrating**

**1% Burns**

**1% Anoxia**

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**

# ***Blunt Injury Causes***

**32 % MVC**

**27% Falls**

**12 % MCC/ATV**

**6% Horse**

**6% Assault**

**2% Bicycle**

**1% Pedestrian**

**6% Other**

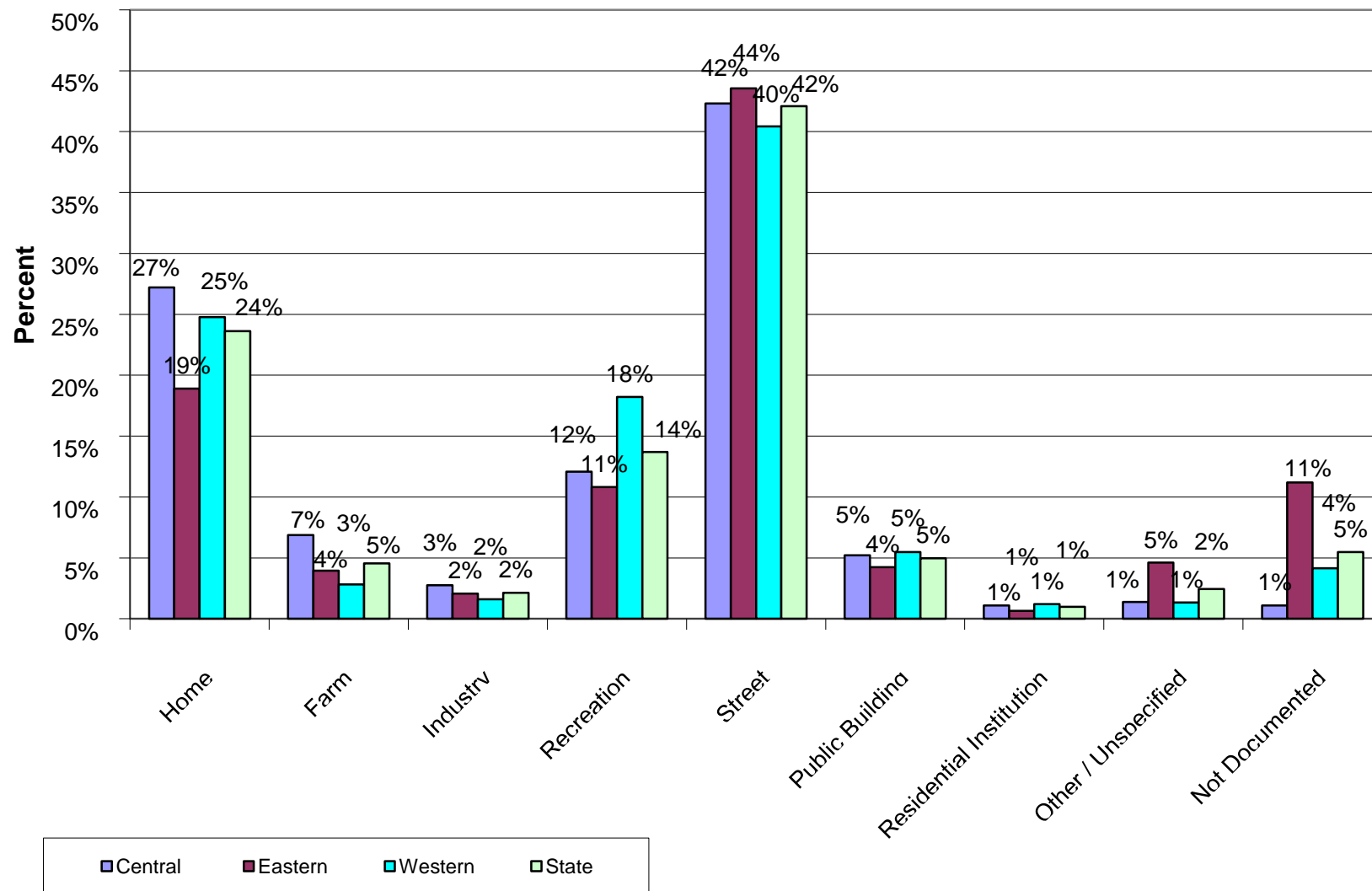
**8% Not Documented**

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



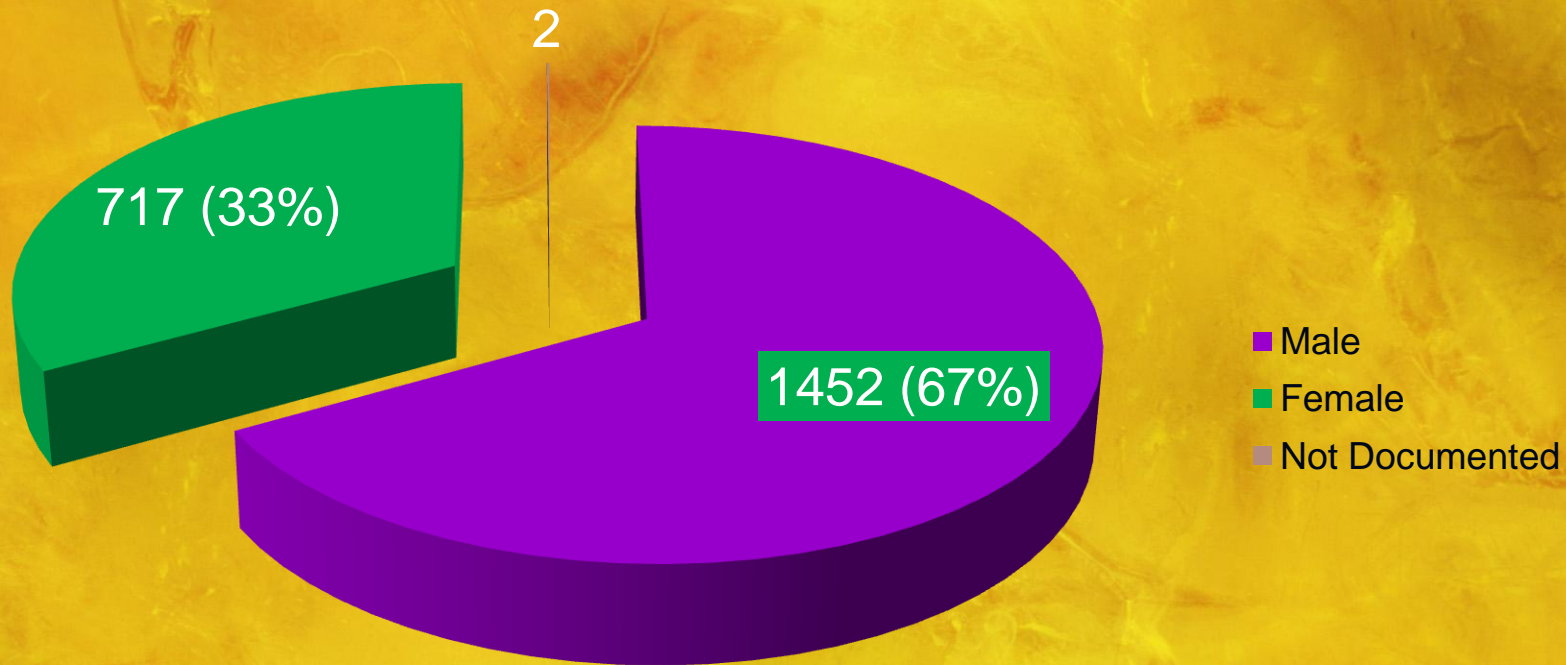
## Location by Region



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## Gender

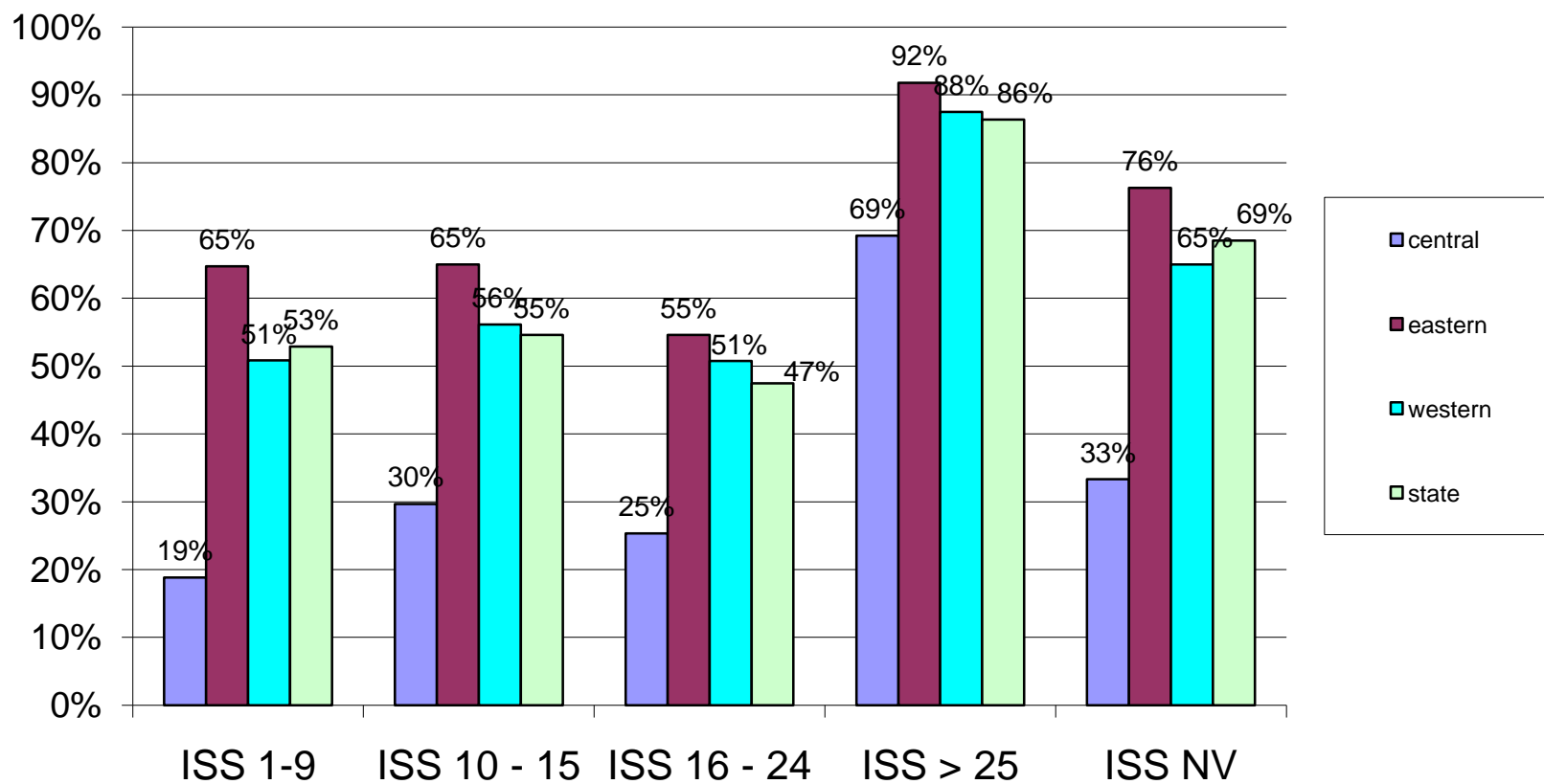


N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



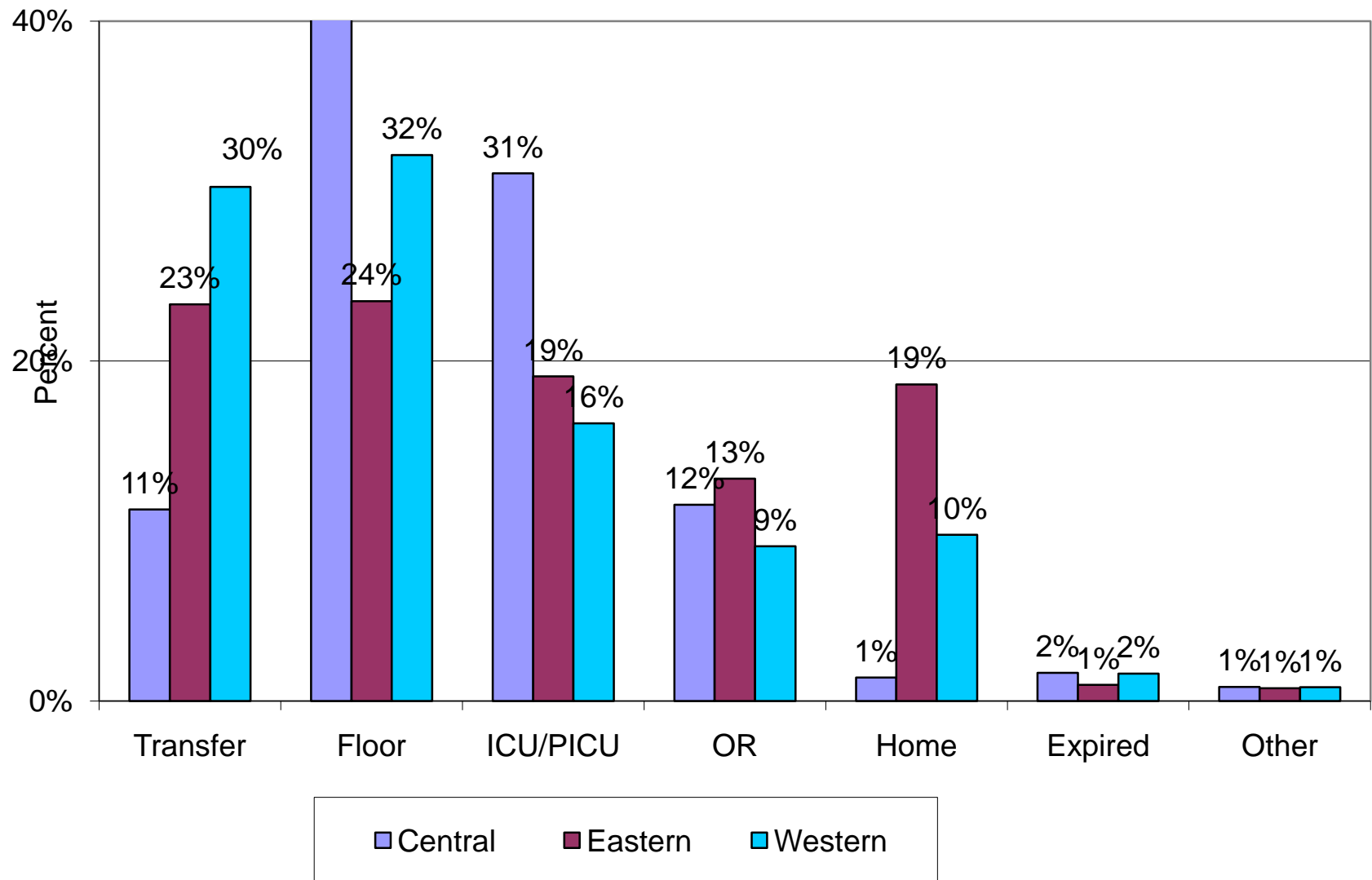
### Trauma Team Activations by ISS



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

# ED Disposition

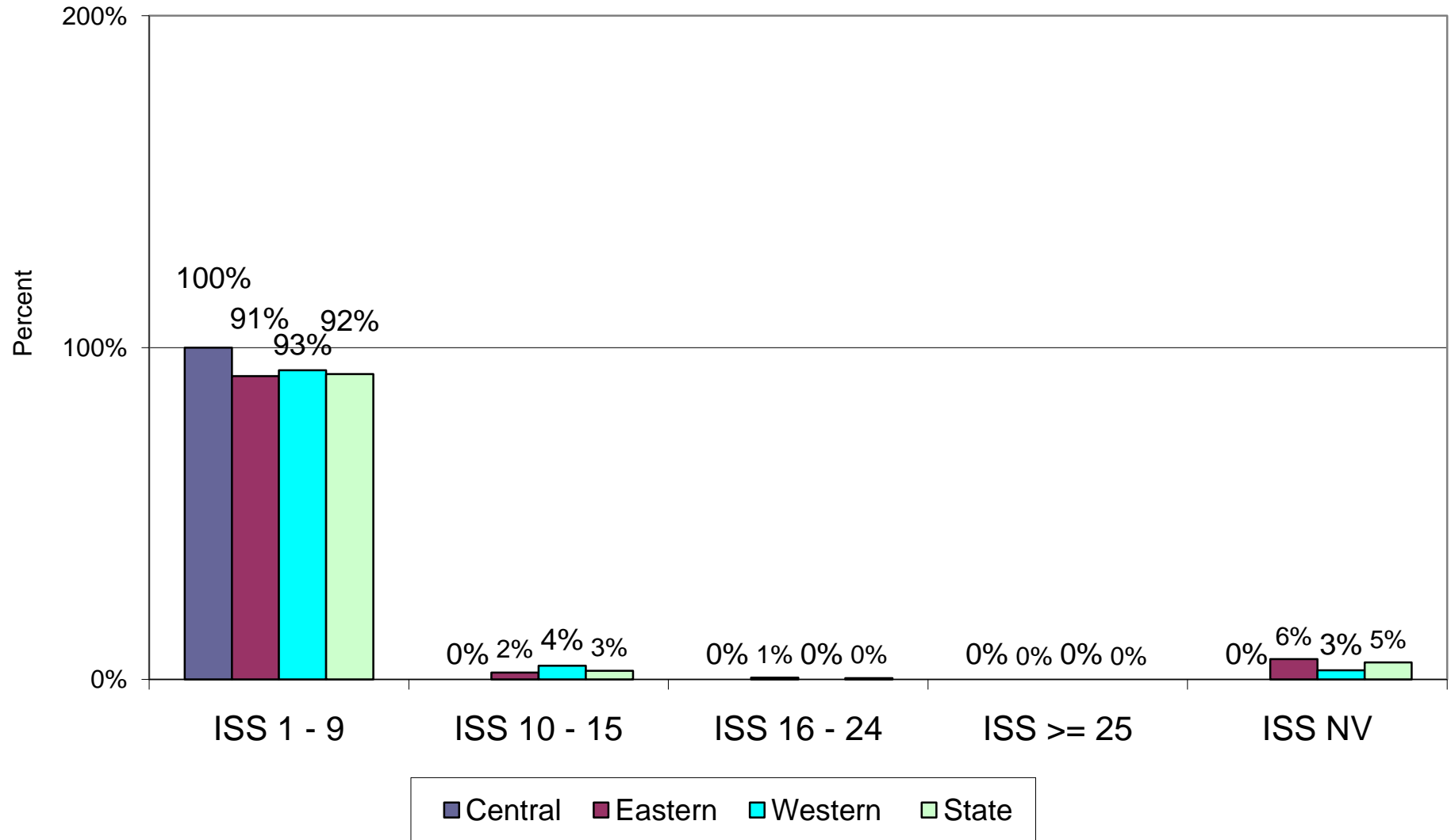


N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



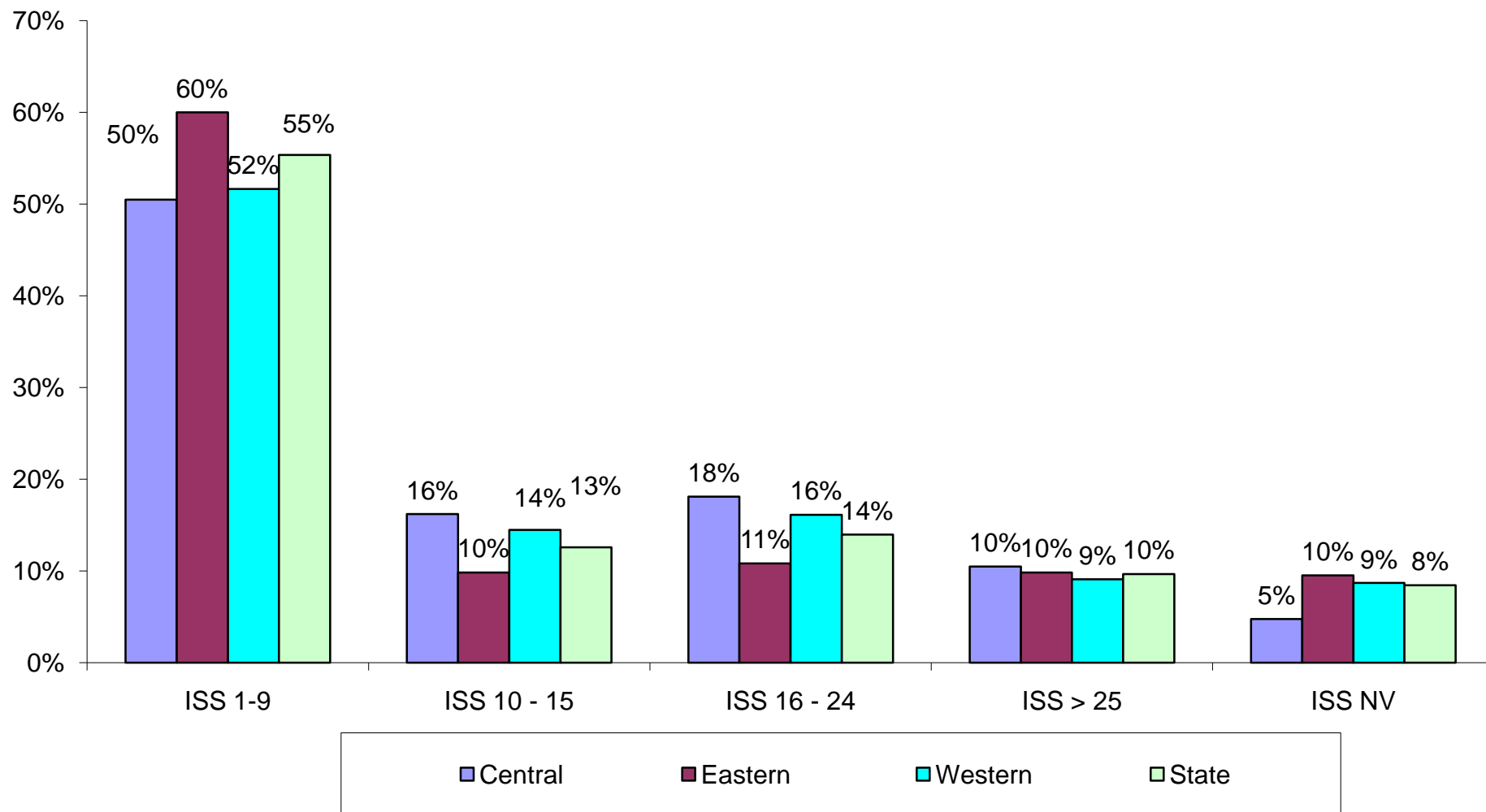
## ED to Home By ISS



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## STATE ED LOS: Less than 120 Minutes

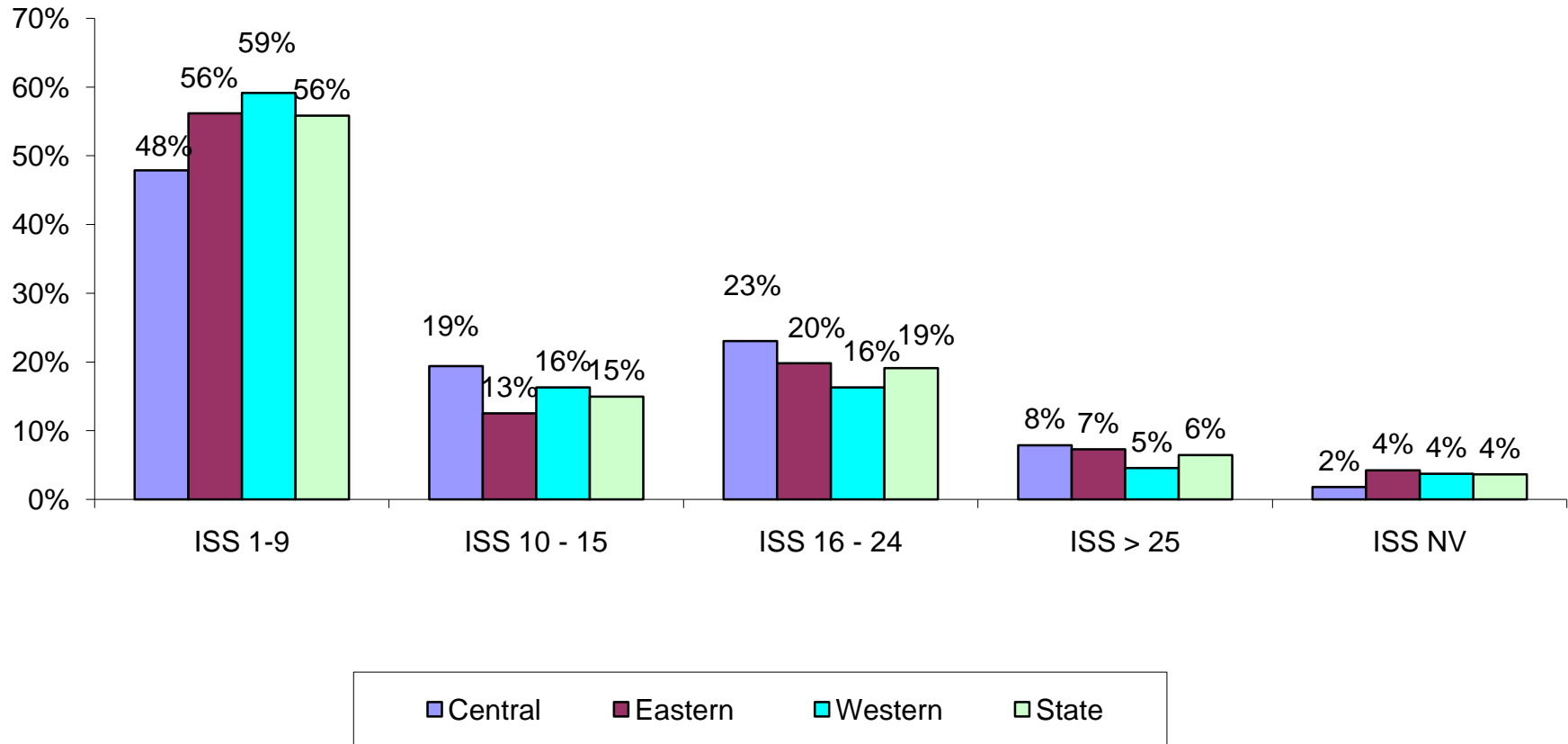


N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



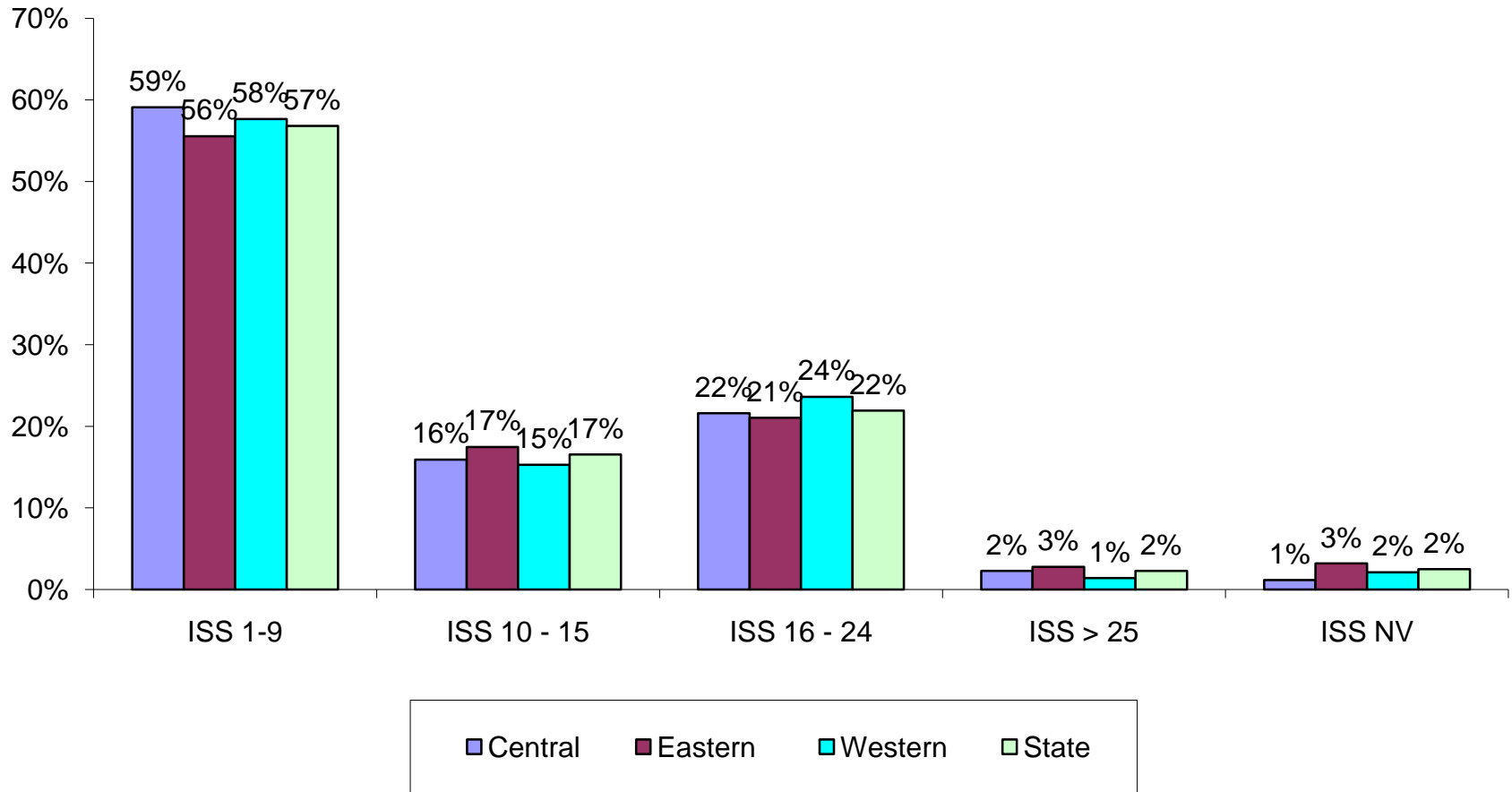
## STATE ED LOS: 120 - 239 Minutes



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## STATE ED LOS: >239 Minutes

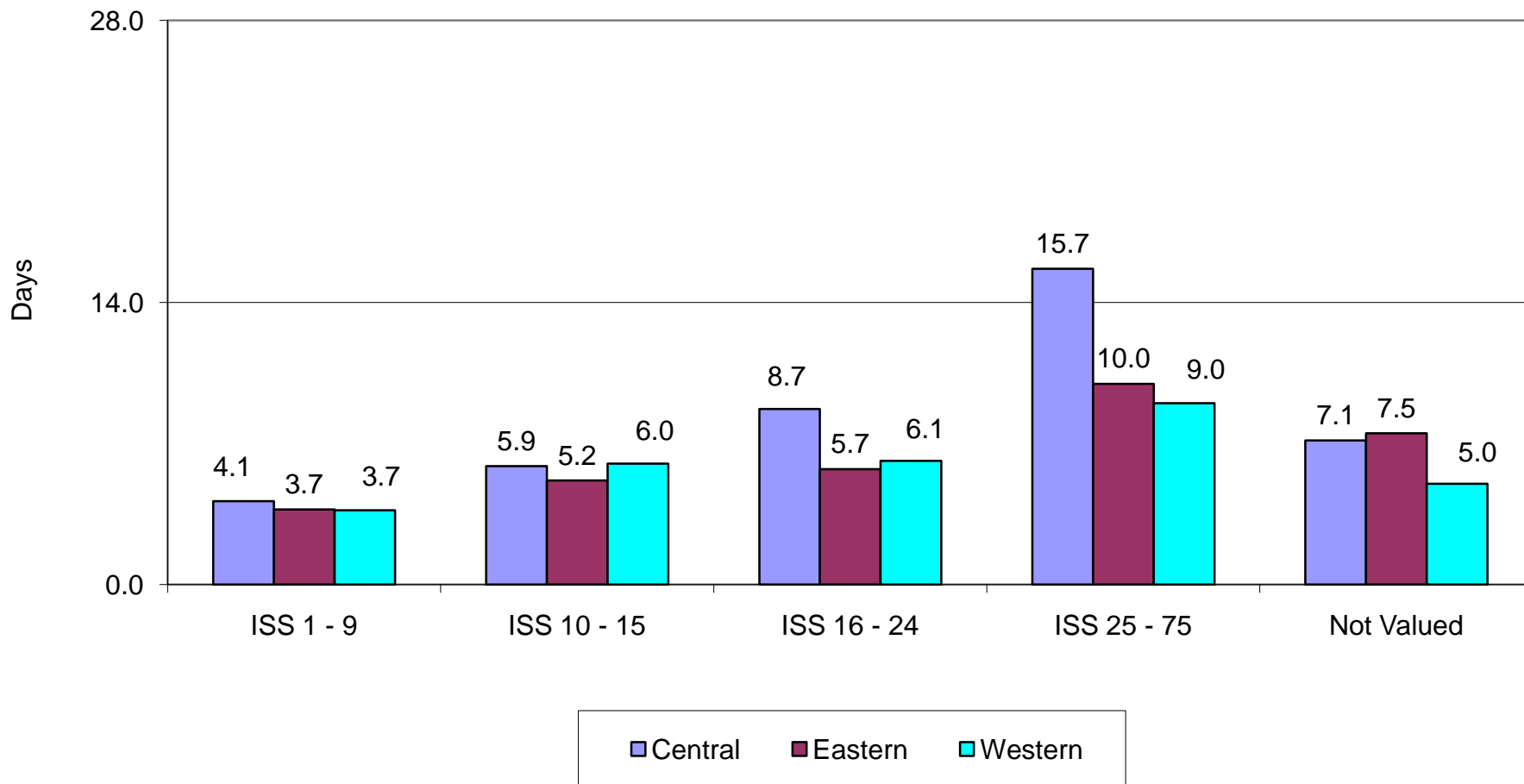


N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



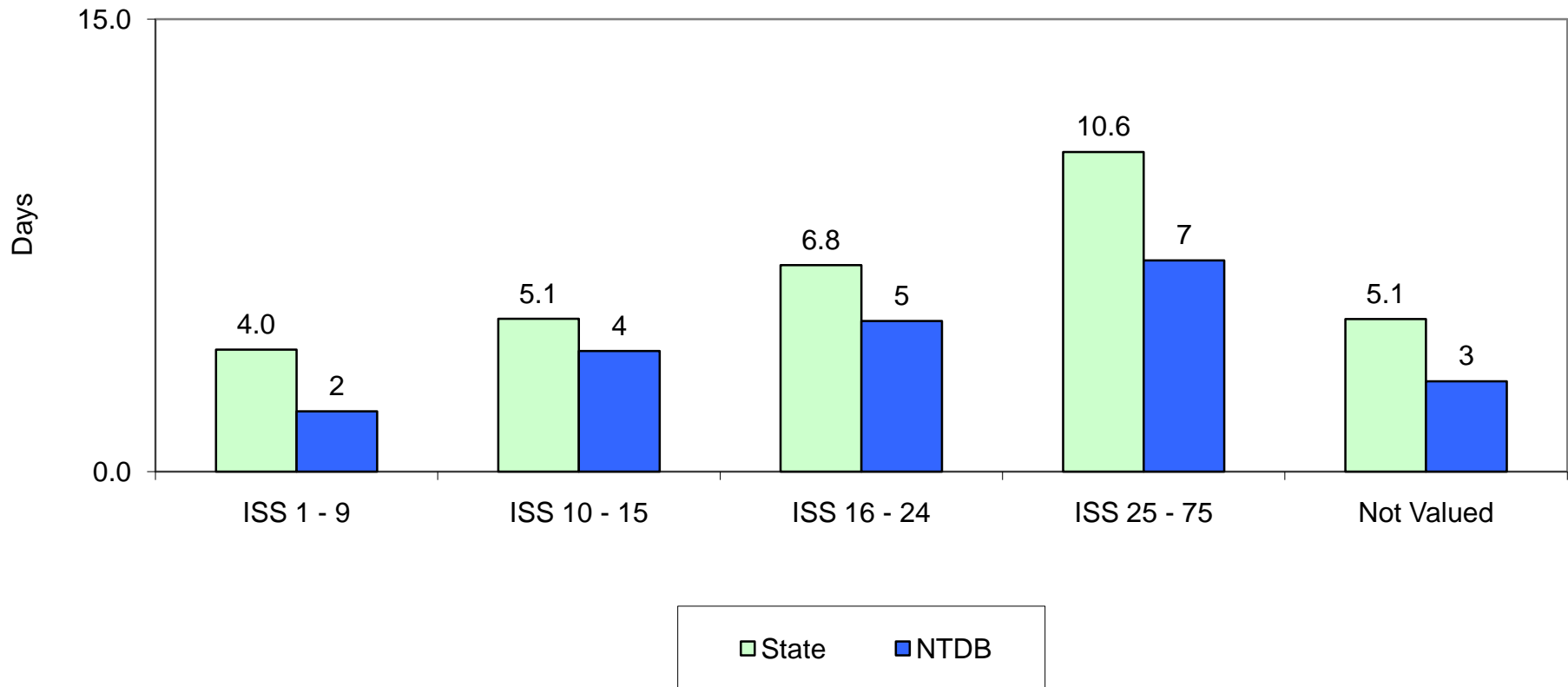
## Avg. Hospital LOS by Region



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## Avg. Hospital LOS (Comparing State and National Trauma Registry)



N = 3481 YTD

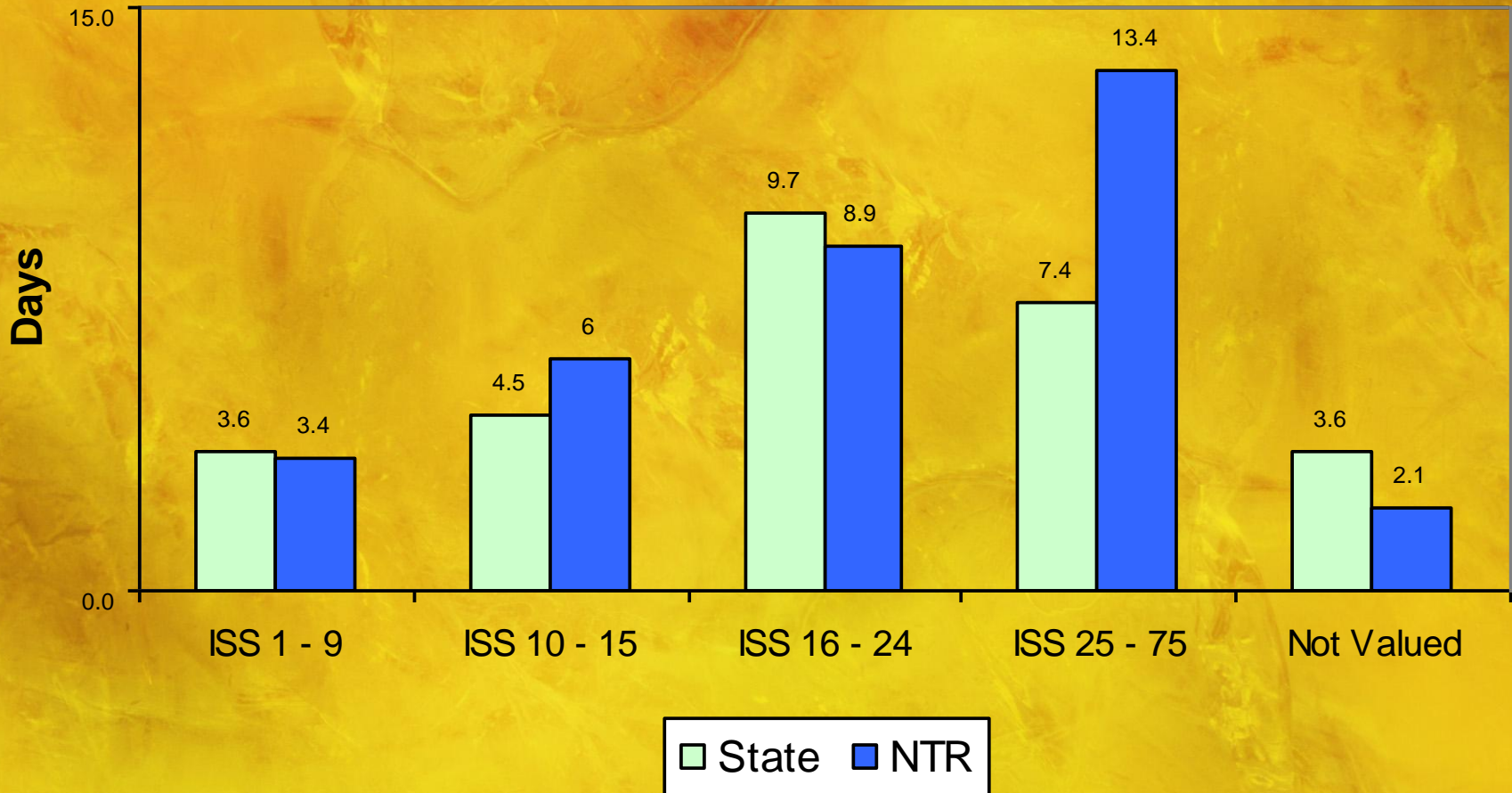
MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



# Avg. Hospital LOS

(comparing State and National Trauma Registry)

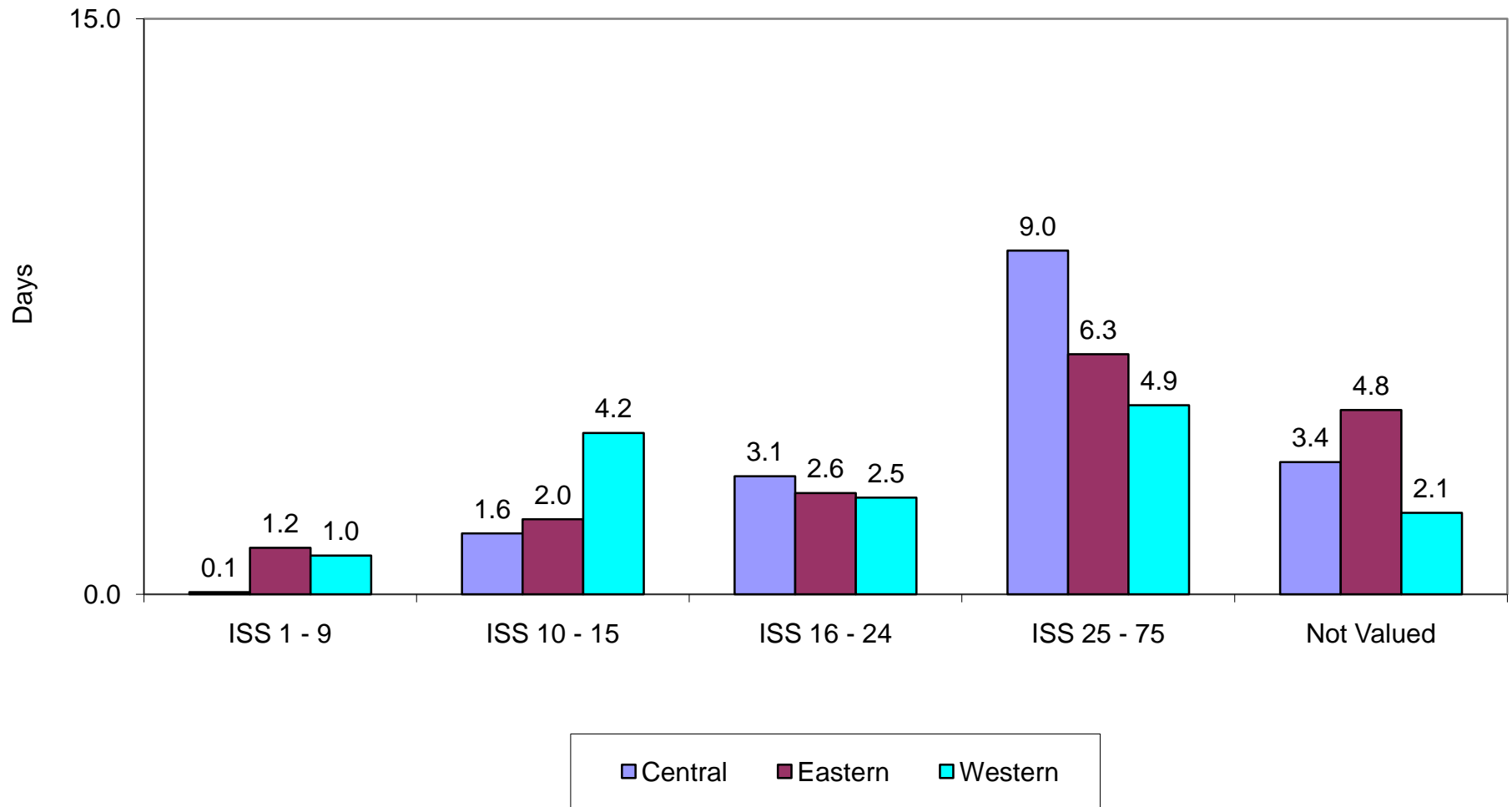
1-3 quarters 2007



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## Avg. ICU LOS by Region

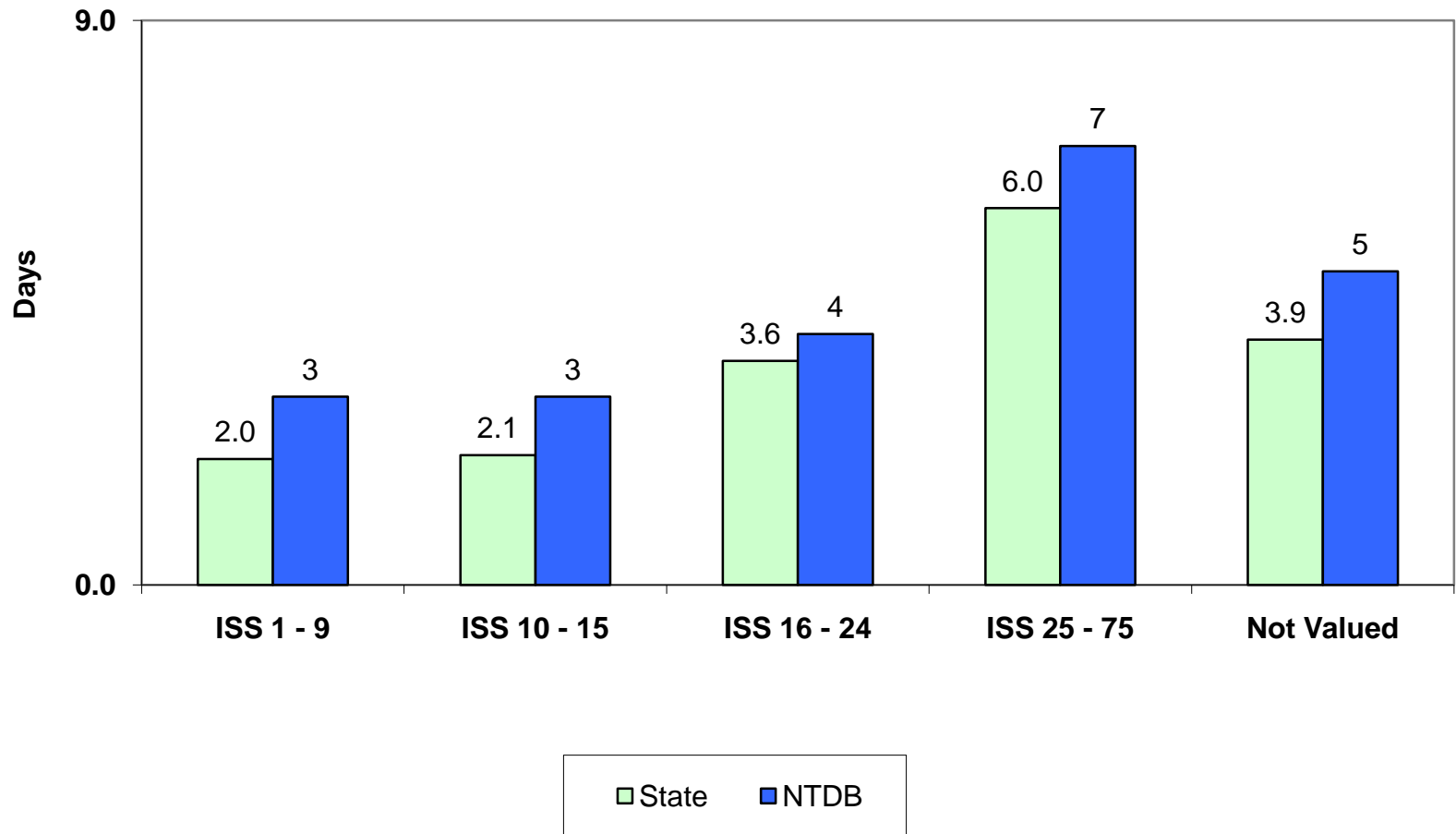


N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



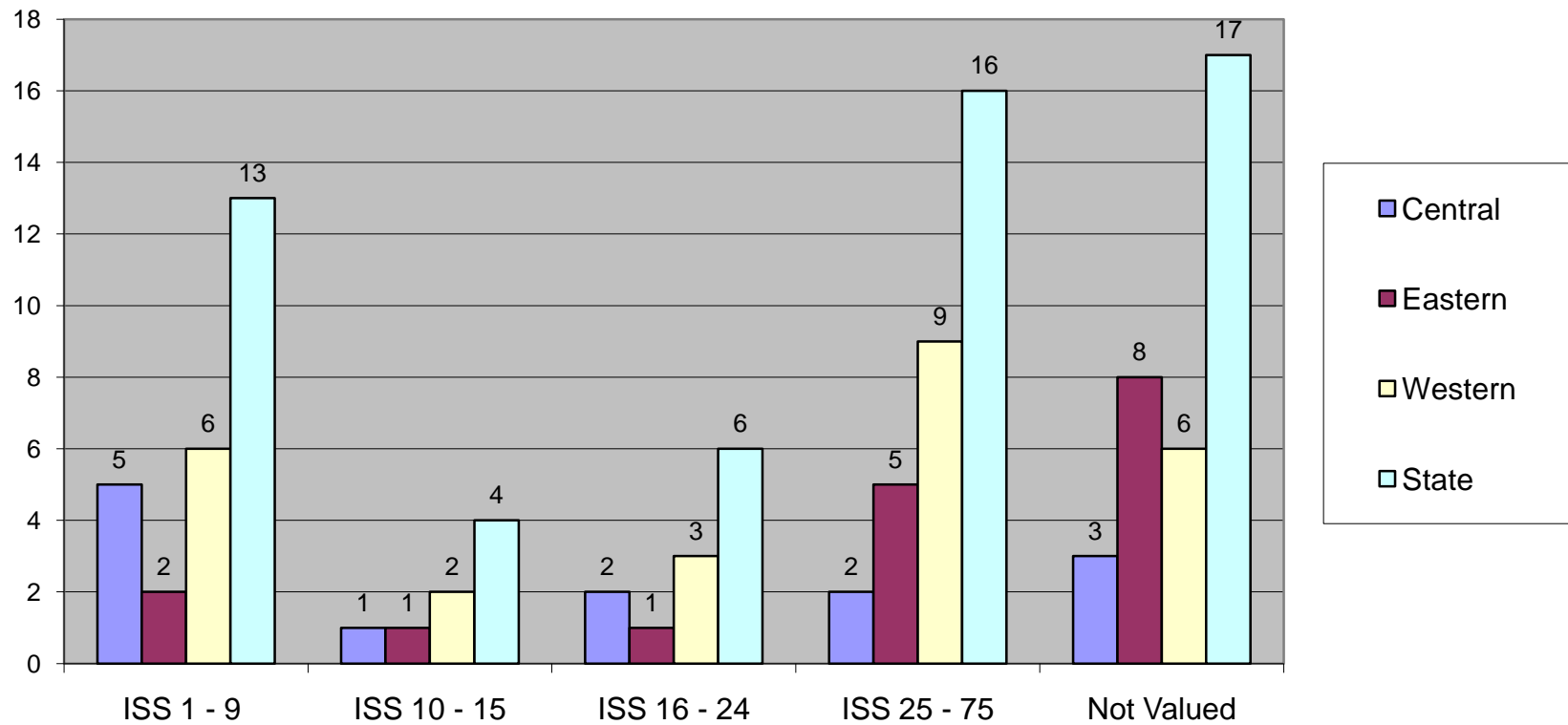
## Avg. ICU LOS (Comparing State and National Trauma Registry)



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

## Number of Fatalities



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009

# ***Fatalities***

**N = 90 YTD**

**Falls – 25 (27%)**

**MVC – 25 (27%)**

**MCC/ATV- 13 (14%)**

**SIGSW – 9**

**Assault -4**

**Hanging – 2**

**Animal related – 2**

**Pedestrian – 3**

**Ski acc - 1**

**Strangulation -1**

**Explosion - 1**

**Crush – 1**

**Drowning -1**

**Electrocution-2**

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



# ***Fatalities***

**MVC : 25**

**+ Restraint**

**5**

**- Restraint**

**17**

**UNK**

**3**

**MCC/ATV : 13**

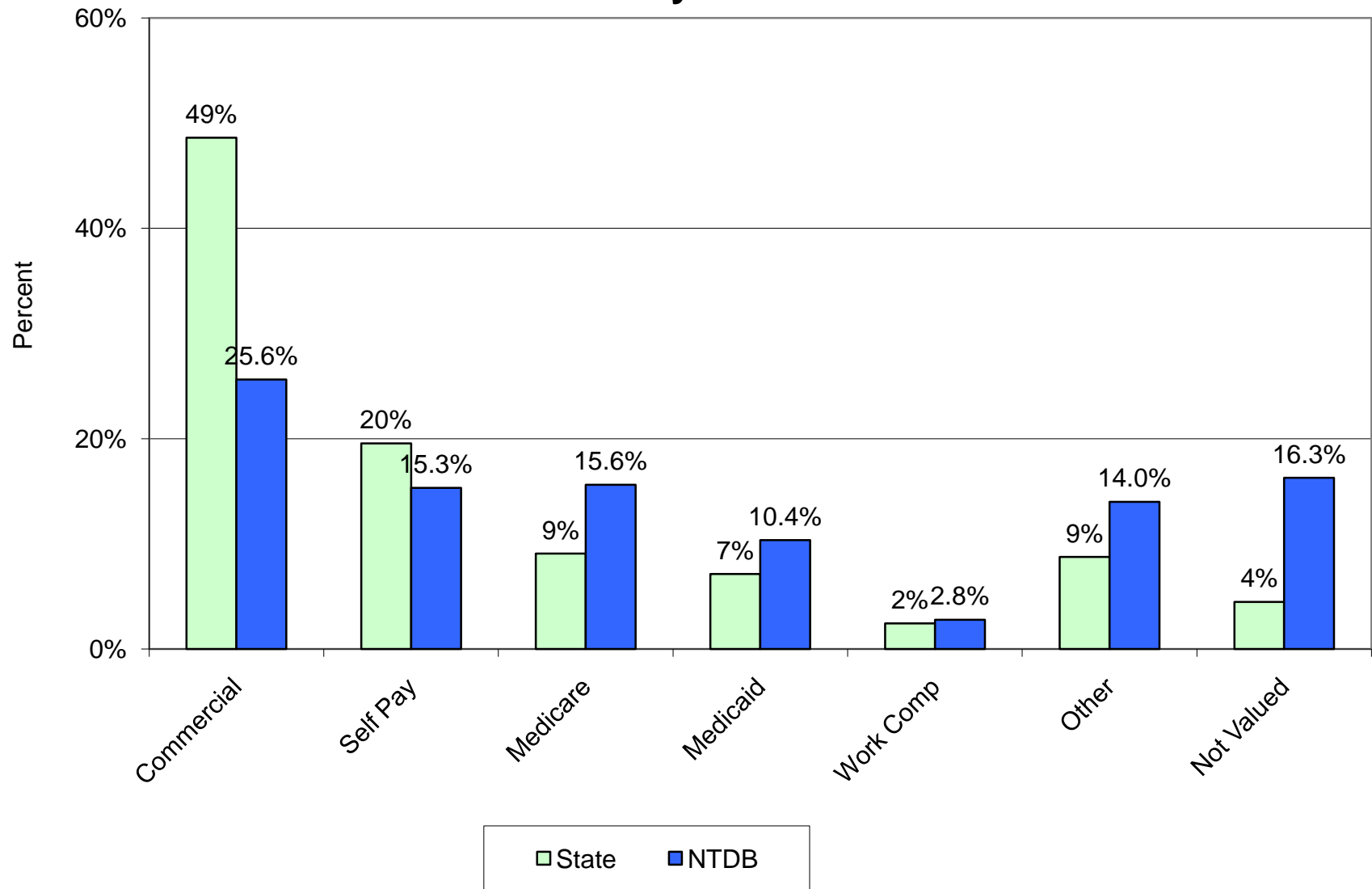
**Helmet**

**2**

**No Helmet**

**12**

## Payors



N = 3481 YTD

MT STCC 1<sup>st</sup> – 3rd Qtrs 2009



# ***Performance Indicators***

*1<sup>st</sup> – 3<sup>rd</sup> Quarters 2009*

*January 1 – September 30, 2009*



# ***PI # 1: Trauma Patients Transported per EMS Without Trip Report in the Medical Record***

**Prehospital Transport: YTD 1510**

**Report available: YTD 1000 (66%),  
(08: 76%)**

**No Report: YTD 510 (34%),  
(08: 29%)**

# ***PI # 1 cont'd***

## **Ambulance Transports YTD**

**Central: 218 (36% of total pts)**

**+ Report: 129 (59%), No Report 87 (39%), ND 2**

**Eastern: 757 (45% of total pts)**

**+ Report: 566 (74%), No Report: 190 (25%), ND 1**

**Western: 535 (45% of total pts)**

**+ Report: 305 (57%), No Report 209 (39%), ND 21 (4%)**



# ***PI # 1 cont'd***

## **Ambulance Transports YTD, by activation phase**

### **Central**

Prehospital:	35	No report:	8 <b>(23%)</b>
		blank:	1
	EMS Service not ID'd:		0

Transfer from another facility:	61	No report:	43 <b>(70%)</b>
		blank:	4
	EMS Service not ID'd:		4



## PI # 1 cont'd

- Ambulance Transports YTD, by activation phase**

**Eastern**

Prehospital: 372      No report: 31 (8%)

blank: 1

EMS Service not ID'd: 5

Transfer from another facility:150    No report: 103 **(69%)**

blank: 0

EMS Service not ID'd: **60**

# ***PI # 1 cont'd***

- Ambulance Transports YTD, by activation phase**  
**Western**

Prehospital: 217	No report: 55 ( <b>25%</b> )
	blank: 10
EMS Service not ID'd: 5	
Transfer from another facility: 82	No report: 50 ( <b>61%</b> )
	blank: 6
EMS Service not ID'd: 38	



# ***PI # 2: Transferred Trauma Patients w/ISS ≥ 15 & time at first facility ≥ 6 hrs***

**7 YTD transfers w/ISS ≥ 15 & time @ facility  
≥ 6 hrs**

**2 transferred after adm: avg hours; 49**

**5 transferred from ED: avg hours; 7.5**



# ***PI #3: Trauma patients with ISS $\geq$ 15 and ED time $\geq$ 2 hours***

**Level II facilities excluded**

**YTD: 124 patients**

- YTD Average ED time: 212" = 3.5hr**
- YTD Average ISS: 20**
- Now looking at number of patients of facilities, mean & range of that facility & dispositions, primarily TRANSFER times**
- Transfer times:**

# ***PI # 4: Trauma patients who died with an ISS $\leq 15$***

## ***N= 28 YTD***

### **Central Region N= 6**

- 3 “undercoded” due to lack of complete Dx of injuries in the ED**
- 2 isolated head and chest injuries w/low ISS scoring**
- 1 MVC, abrasions and hypothermia w/low ISS scoring**
- 1 anoxia w/low ISS**

### **Eastern Region N=8**

- 4 “undercoded” due to lack of complete injury Dx from explosion**
- 1 neck fx w/low ISS scoring**
- 1 femoral neck fx, elderly, comorbidities & comfort care**
- 2 multiple injuries/low codes**



***PI # 4: Trauma patients who died with an ISS  $\leq$  15***  
***N= 28YTD***

**Western Region N= 14**

- 7 “undercoded” due to lack of complete Dx of injuries in the ED**
- 2 isolated head injury/neck injury w/low ISS scoring**
- 1 anoxic injury resulting in low ISS scoring**
- 1 w/minor injuries due fall because of multiple & severe comorbidities**
- 2 elderly fall/moderate injuries but w/comobidities/comfort care**
- 1 mult stab inj/mult “open wound codes” = low coding**

**N = 3481 YTD**

**MT STCC 1<sup>st</sup> – 3rd Qtrs 2009**



***PI # 5: Patients w/GCS  $\leq$  9 & not intubated***

**No Longer tracking/reporting  
STCC PI Indicator**

**WILL continue  
tracking/reporting to RTACs  
for trending/issues**